[Reprinted from THE MEDICAL NEWS, June 18, 1892.]

A FEW SUGGESTIONS ON THE DIAGNOSIS AND TREATMENT OF LUPUS.[1]

BY WM. THOMAS CORLETT, M.D., L.R.C P. LOND,
PROFESSOR OF DERMATOLOGY IN THE WESTERN RESERVE UNIVERSITY; CONSULTING PHYSICIAN FOR DISEASES OF THE SKIN TO THE CHARITY HOSPITAL, THE CITY HOSPITAL, ST. ALEXIS HOSPITAL, ETC., CLEVELAND, OHIO.

IT is not the object of this paper to discuss *in extenso* the various aspects of lupus, nor to detail the several modes of treatment in vogue, but to present in a concise way the main points as to diagnosis and treatment that have presented themselves to the writer from time to time.

It is accepted as a fact that lupus is a local tuberculosis, in main identical in histologic structure with tuberculosis of the internal or more vital organs, and like it due to the bacillus tuberculosis.

The simplest form is called lupus erythematosus. Histologically it is a small-celled new-growth of the skin, best marked about the bloodvessels, clinically appearing in the form of one or more circumscribed, variously sized, reddish patches, covered with grayish-yellow, adherent scales.

Its favorite seat is on the face; it is a disease of

[1] Abstract of a paper read before the Surgical Section of the American Medical Association, held at Detroit, from June 7 to 10, 1892.

middle life, is never seen in childhood or in old age, and is far more common in women than in men. Jonathan Hutchinson states that it is frequently found in persons having a languid circulation, as evidenced by cold hands and feet, and with a purple, mottled skin. Thus, in its incipiency, it seems allied to erythema, which at first it closely resembles. Lupus erythematosus, however, is circumscribed, with well-defined margins, and although at first it may show a tendency to evanescence, yet it always recurs in the positions previously invaded; while erythema is not sharply defined, it extends over a larger area, is markedly evanescent, and tends to invade new surfaces rather than to return to positions previously occupied. As lupus erythematosus develops, its appearance is quite unlike that of erythema, and little difficulty will be experienced in a differential diagnosis.

From rosacea, lupus erythematosus may be distinguished by the engorged condition of the blood-vessels, which in the former constitutes one of the most prominent features. Then, acute inflammation of the sebaceous follicles accompanies rosacea; its distribution is on the tip of the nose, chin, and not infrequently over the entire face, while lupus erythematosus usually appears over the malar bones and extends thence across the bridge of the nose—butterfly-shaped.

Lupus erythematosus may, however, occur on other parts of the face, more rarely on the trunk and extremities, when a diagnosis is oftentimes extremely difficult. In these positions it resembles tinea circinata, but in the latter there is usually a

history of contagion; if this be wanting, the only trustworthy means of differentiation at our command is the microscope. After macerating the scales of tinea in liquor potassæ for a few minutes, a sixth-of-an-inch objective will enable one to detect the tricophyton, which is absent in scrapings from a lupus surface.

Eczema in middle or advanced life may resemble lupus erythematosus. This especially applies to the form of eczema found in gouty or rheumatic subjects,[1] which occurs most frequently on the back of the hands, and when one hand alone is involved the resemblance may be quite misleading. In eczema there is invariably a history of moisture in the early stage of the disease—the so-called catarrhal inflammation—and it is usual even late in its course to find groups of vesicles in the neighborhood, notably on the fingers and toes; while the eruption of lupus erythematosus is essentially dry.

Then again, eczema is ill-defined at the margins and gradually merges into the healthy skin, which contrasts with the exaggerated peripheral disturbance that gives to lupus a sharp line of demarcation.

The sensation of itching is of little diagnostic value.

Although the surface of a patch of lupus may resemble that of other affections, yet the bed underlying the scaly covering is peculiar to this disease. On picking up the scales, which are firmly adherent, it will be seen that there are processes extending downward into the sebaceous follicles, which after

[1] "Diseases of the Skin in the Subjects of Gout," Journ. Cutaneous and Venereal Diseases, September, 1886.

removal leave the patulous openings of the follicles plainly visible. At other places, blood will be seen oozing from the ragged surface. In eczema, upon removing the scales, the surface will be found moist, as if bathed in copious perspiration.

Psoriasis in a mild form, especially when it occurs in gouty or rheumatic persons, as Liveing has pointed out,[1] at times closely resembles lupus erythematosus; this is notably so when the disease appears on the scalp; but, first, the history of invasion is widely dissimilar in the two affections, psoriasis making its appearance about the age of puberty, while lupus erythematosus appears at a period ranging between twenty-five and forty-five years of age.

Again, the scales of psoriasis are silvery white, imbricated, and less firmly adherent; the base of the patch is smooth or undulating, at times showing the summits of the enlarged papillæ; while the scales of lupus and its base present the features already described.

The extension of the lupoid process downward into the sebaceous sac and hair-follicle interferes with the nutrition of the hair, so that when the disease occurs on the scalp or bearded part of the face in men, the roots of the hairs are destroyed, leaving bald plaques; while in psoriasis the root of the hair is but little, if at all, affected.

Syphilis in its protean manifestations may resemble lupus erythematosus. In the absence of a syphilitic history, which requires the greatest care lest it prove misleading, the lesions themselves may

[1] A Handbook on the Diagnosis of Skin Diseases, London, 1878.

be differentiated; and in this it is well to bear in mind that the lesions of syphilis are more general in their distribution; they are, as a rule, more evanescent and of a darker color. Finally, in case of doubt, a fortnight's treatment with anti-syphilitic remedies may be resorted to. Lupus erythematosus leaves scars that may be scarcely perceptible; in severe cases they resemble parchment.

Lupus vulgaris is a more severe form of the disease. It also is a cellular new-growth, characterized by variously sized and shaped, reddish or brownish patches, which consist of papules, tubercles, or flat infiltrations, usually terminating in ulceration and the formation of disfiguring cicatrices.

This form is more pronounced and consequently less liable to be confounded with other affections. There is one disease, however, in which a positive diagnosis is often extremely difficult, viz., syphilis. This similarity only applies to the late manifestations of syphilis, when the variously-appearing lesions are primarily made up of granulation-tissue. Histologically, lupus likewise comes under the head of granulation-tissue, so that the external aspects of the two affections in the different stages of development and degeneration are closely alike. Generally the histories of the individual lesions—not of the disease, for in syphilis this is frequently misleading—will enable one to determine to which of these affections the case belongs. In lupus vulgaris the lesion will be found first making its appearance early in life, at about the age of puberty, and the eruption is extremely chronic, often remaining for years with but slight variation. The late manifesta-

*

tions of acquired syphilis occur later in life, are more widely distributed, and, although slow in course, their duration is a matter of months rather than of years, as is the case with lupus.

There are also distinctive features in the lesions that the experienced eye may readily detect, but that can be but imperfectly described. The following may be mentioned as the most noteworthy: The base of the lupus patch shows an exuberant growth of granulations, its margins are undermined, and islets of lupus-tubercles are seen in the adjacent skin. In syphilis, the margins are clearly cut, as if punched out, with a smooth, ashen-gray base. Lupus attacks the soft parts, which it destroys; in severe cases cartilage offers no certain barrier to its ravages; but it never attacks bone; not so with syphilis, which late in its course has even a predilection for the osseous system. Again, when syphilis occurs on the face, it is most commonly seen on the upper part of the forehead, the fissures between the alæ of the nose and the upper lip and the angles of the mouth, in which latter positions it is pathognomonic; whereas lupus vulgaris selects in preference the nose, cheeks, and ears. Too much stress must not be laid on the color, for it may or may not be distinctive.

Even greater difficulty will be experienced when lupus invades the trunk or extremities. Here the main point of diagnostic value is the limited area of the eruption, and if accompanied by lupus on other parts, as on the face, its extreme persistency will enable one to exclude the multiple and more short-lived eruptions of syphilis; nor will the micro-

scope aid materially in the diagnosis, as the tubercle-bacillus is difficult to detect and is not found in all specimens examined. As in lupus erythematosus, when doubt still exists a fortnight's treatment with some form of iodine will usually settle the diagnosis so far as relates to syphilis.

It is very seldom that epithelioma or rodent ulcer is mistaken for lupus, yet a limited patch of the latter may bear some similarity to the former; and as epithelioma leads to a fatal termination, and is only successfully treated before the lymphatic glands are implicated, its early recognition is all-important.

First, as to age; lupus appears before thirty-five, while epithelioma comes later in life. The nodules of lupus are multiple, while epithelioma presents but a single lesion. At times, the fungoid growth of the lupus-tubercle contrasts strongly with the ulcer-like lesion of epithelioma. In lupus, the lesion is soft, while in carcinoma the base and margins are hard, and the surface is glazed with a watery secretion.

Occasionally, epithelioma develops on a surface already occupied by lupus. The one case that has come under my observation at St. Alexis Hospital rapidly passed on to a fatal termination.

Lupus verrucosus is a more rare form, and in my experience has been encountered in very strumous subjects early in life. The warty outgrowth is quite characteristic, and once seen cannot well be mistaken for anything else.

The treatment of lupus must also be considered *seriatim*. First, in regard to lupus erythematosus: As in granulomata, scrofulomata, etc., of different

writers, the general condition of the patient should be seen to, and at its onset the disease may yield to this alone.

The diet should contain a large quantity of the hydrocarbons, and the form that is most generally acceptable is butter. Following in the same line, cod-liver oil stands in high esteem. Then in the rôle of medicaments come iodine and creasote. Some years ago, Dr. Liveing, of London, carried out what he called the iodine-treatment for lupus. Iodine in various combinations was given internally to toleration, and an ointment of mercuric iodide was applied to the lupus surface. There could be no doubt that cases of lupus at the Middlesex Hospital were greatly benefited, but according to my subsequent experience the disease is not eradicated even after a prolonged course, and it readily resumes its wonted severity on discontinuing the treatment.

More recently Bulkley has extolled the internal use of phosphorus, but my own limited experience with it has not encouraged its further use. At the Hurlbut and Huntington Dispensaries of Western Reserve University, creasote is extensively used by my confrères for tuberculosis,[1] and its employment in the treatment of lupus during the past two years leads me to believe that the remedy is of decided benefit in this disease. The dose varies somewhat according to individual peculiarities, but it is well to begin with from one to two minims in capsule every two hours. This may be increased to three minims every two or three hours.

[1] "How to Give Creasote," by Howard S. Straight, M.D., Cleveland Med. Gazette, December, 1891.

In severe or neglected cases, however, it will be necessary in addition to attack the disease *in situ*. The following is a simple and efficient procedure: The surface is prepared by washing it vigorously with hot water and the German green soap; the latter is then thoroughly rubbed into the skin and allowed to remain for an hour. The surface is again cleansed, when the scales and follicular processes into the sebaceous glands will be cleared away, leaving a raw surface. Then apply—

R.—Sulph. precip. . . . . ℥iij.
Glycerini } āā . . . . ℥j.—M.
Alcoholis }

S.—Apply three times a day.

Two or three times a week for a fortnight the green soap should be repeated.

In more severe cases I have added to the preceding formula ammonium sulpho-ichthyolate in the strength of 5 per cent, and have found it a valuable adjuvant. Mercury, in the form of the diachylon plaster, the white precipitate ointment, or the oleate (20 per cent.), likewise has its advocates, and is without doubt a valuable application.

In many cases, however, more radical measures are required, and I have found linear scarification, as practised so extensively at the Hôpital St.-Louis by Vidal, the most efficient means at our command. The cuts are made entirely through the derma and closely together, then crosswise. After the bleeding has ceased, emplastrum vigo cum mercurio is applied. This dressing should be removed daily, and the scarification repeated twice a week.

In the treatment of lupus vulgaris, what has been said in regard to the hygienic management and internal medication of lupus erythematosus applies with equal force; but more especially in this disease are external procedures required. Bearing in mind that we have to deal with a local tuberculosis that extends indefinitely, constantly invading new tissue, each additional tubercle acting as a new focus of infection, the object of treatment is obviously to cut short this process of extension and to remove the noxious material already formed. This is done as follows: The patient is chloroformed, and with a Volkmann's spoon the tubercles are cleanly scraped out; then the parts are washed with a mercuric chloride solution (1 : 1000), and pyrogallic acid is packed into the excavations thus formed. This dressing is repeated daily for several days; then some simple dressing, such as the white precipitate ointment or the emplastrum vigo cum mercurio, is applied until resolution takes place. Occasionally the pain, subsequent inflammation, and constitutional disturbance are too severe, when some of the milder escharotics should be employed. Of these, creasote and carbolic acid are the best, causing but slight pain and no constitutional ill-effects. Seldom will one operation suffice, for in a few weeks or months brownish spots will be seen; these soon develop into tubercles, when the procedure must be repeated until the cure is complete.